

Datasheet

ADA-4040

Separator-repeater RS-485 / RS-422



APPLICATION

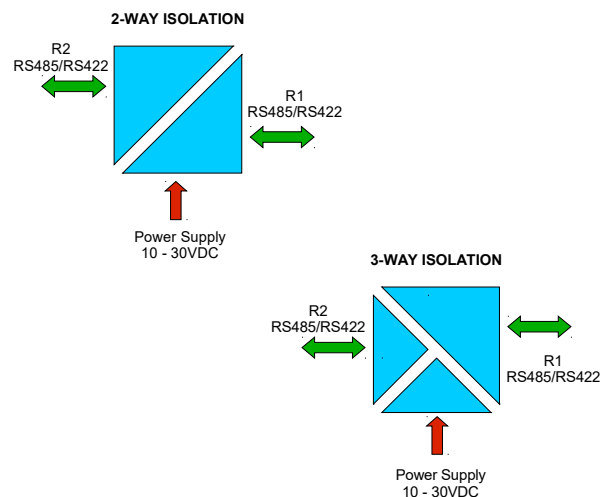
ADA-4040 separator-repeater is a device used for separation and extension of RS485/422 bus, about next segment 1200m (without interference with data format). The distance is being reduced in case of large baud rate (over 115,2 Kb). The separator-repeater can be used for communication with other, remote devices with RS485/422 interface eg controllers or scales; using the lines RX+,RX-,TX+/A,TX-/B. ADA-4040 transmits data at baud rate up to 230,4 kbps, through four or two twisted-pair connected to a terminal block. To RS485/422 bus created by the use ADA-4040, it is possible to connect 32 devices, operating in half duplex or full duplex mode. The 1kVDC or 3kVDC galvanic isolation and ~3kVDC optoisolation in signals line separate RS1/OUT (RS485/RS422) interface from RS2/IN (RS485/RS422) interface. Protect a device connected to RS2/IN from overvoltage, which appear on RS485/422 bus, connected to RS1/OUT and in the power-circuit. Over-voltage protection on each RS485/422 lines, was made on the base overvoltage LED's and the fuses. ADA-4040 should be powered from the power supply stabilized voltage with a voltage in the range 10 - 30 VDC and minimum power 2W.

TECHNICAL DATA

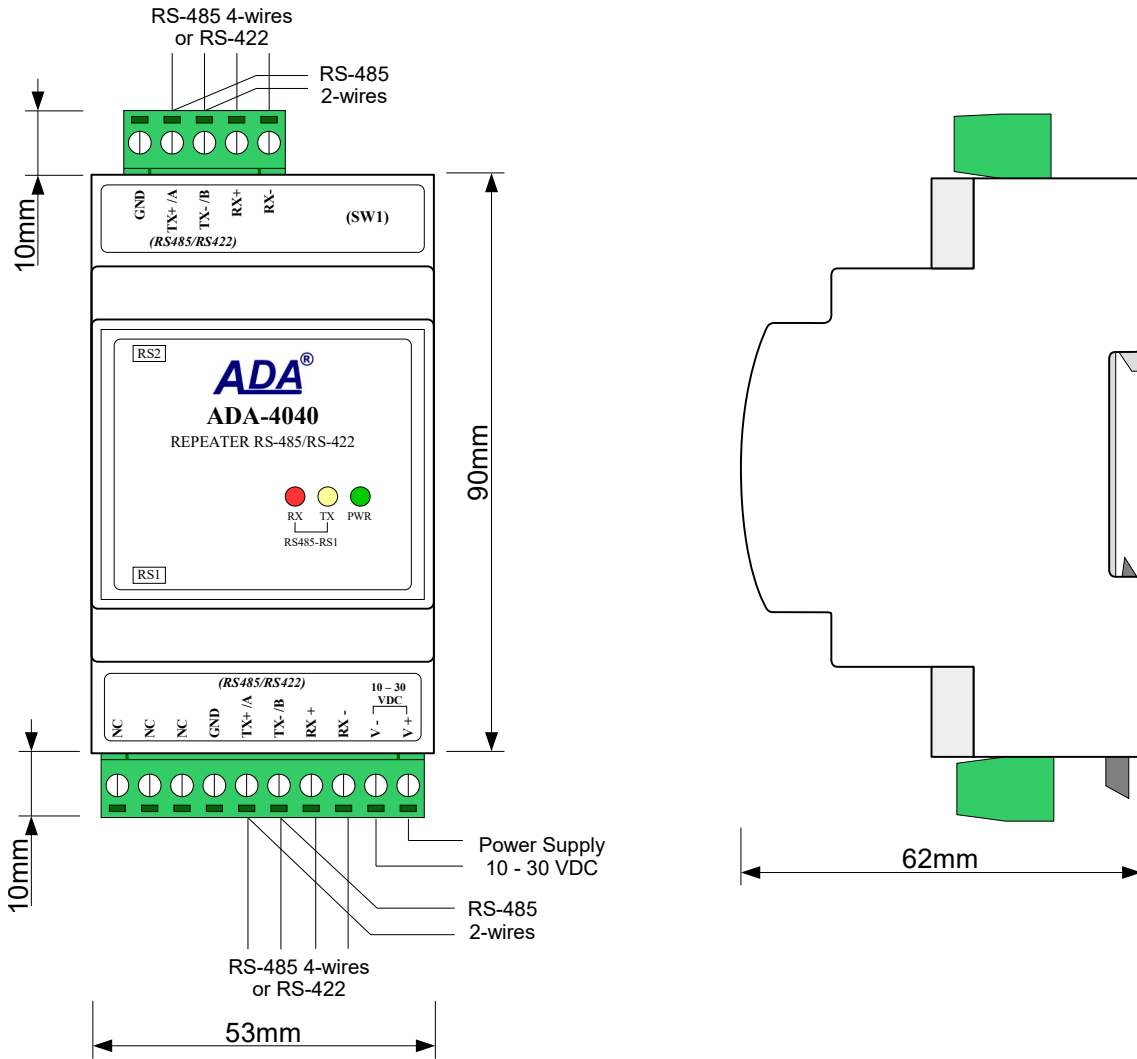
Transmission Parameters		
Interface	RS1 RS-485/422	RS2 RS-485/422
Connector	Screw terminal, wire max. Ø 2,5mm ² .	
Max. Line length	up to 1200 m	
Max. number of connected device	up to 32	
Max. baud rate	230,4 kbps	
Transmission line	1-pair or 2-pair twisted cable, UTP Nx2x0,5 (24AWG), shield in environment of large interference STP Nx2x0,5 (24AWG)	

Standards	EIA-485, CCITT V.11
Transmission type	Asynchronous half duplex or full duplex
Optical Signalization	<ul style="list-style-type: none"> • PWD – green LED power supply, • RX - red LED data receiving on RS1 – RS485/RS422, • TX - yellow LED data transmission via RS1 – RS485/RS422.
Electrical Parameters	
Power requirements	10 - 24 – 30 V DC
Power Cable	Recommended length of power cable – do 3m
Power	<2W
Protection from reverse power polarization	YES
Galvanic Isolation	1kV DC or 3kV DC - between power circuit and RS485/422 signal line
Optoisolation	~3kV - between signals lines RS-485/RS-422 (RS1) and RS-485/RS-422 (RS2)
Electromagnetic compatibility	Resistance to disruptions according to the standard PN-EN 55024. Emission of disruptions according to the standard PN-EN 55022.
Safety requiring	According to the PN-EN60950 norm.
Environment	Commercial and light industrial.
Environmental Parameters	
Operating temperature	-30 ÷ 60°C
Humidity	5 ÷ 95% - non-condensing
Storage temperature	-40 ÷ 70°C
Casing	
Dimensions (W x D x H)	53mm x 90mm x 62 mm
Material	PC/ABS
Degree of casing protection	IP40
Degree of terminal protection	IP20
Weight	0,10 kg
According to standards	DIN EN50022, DIN EN43880
Location during work	Free
Mounting method	On the rail compliant with DIN35 / TS35 standard.

GALVANIC ISOLATION



DIMENSIONS AND CONNECTION



VERSIONS

ADA-4040 -		
Electronics version:		
Basic	1	
Special	2	
Galvanic isolation:		
1kV=, 2-way	2	
1kV=, 3-way	23	
3kV=, 2-way	3	
3kV=, 3-way	33	
Terminal & Terminal Cover:		
Cover without inlets, screw terminal block	1	
Cover with inlets, screw terminal block	2	
Cover without inlets, plug-in screw terminal block	3	

Order example:

Product Symbol: **ADA-4040-1-23-3**

1 – basic electronics version,

23 – 3-way galvanic isolation 1kV=,

3 – cover without inlets, plug-in screw terminal block.